



PATENT  
512585-2003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Chilcott et al  
U.S. Serial No. : 10/564,799  
International  
Application No. : PCT/NZ2004/000153  
International  
Filing Date : July 19, 2004  
For : TREATMENT OF MALODOUR  
Confirmation No. : N/A

745 Fifth Avenue  
New York, New York 10151

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P.O. Box 1450, Alexandria, VA 22313-1450

Anne-Marie C. Yvon, Registration No. 52,390  
Name of Applicant, Assignee or Registered

Representative  
Anne-Marie C. Yvon  
Signature  
March 8, 2006

Date of Signature

COMMUNICATION

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Enclosed for the Examiner's convenience is a copy of

PATENT  
512585-2003

the International Preliminary Examination Report issued in  
priority application PCT/NZ2004/000153.

Respectfully submitted,

FROMMER LAWRENCE & HAUG LLP  
Attorneys for Applicants

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PATENT COOPERATION TREATY

PCT/NZ2004/00013

From the INTERNATIONAL BUREAU

**PCT**

NOTIFICATION CONCERNING  
TRANSMITTAL OF COPY OF INTERNATIONAL  
PRELIMINARY REPORT ON PATENTABILITY  
(CHAPTER I OF THE PATENT COOPERATION  
TREATY)

(PCT Rule 44bis.1(c))

To:

GRIFFITHS, Teresa, V  
A J Park  
6th Floor Huddart Parker Building  
Post Office Square  
P O Box 949  
Wellington, 6015  
NOUVELLE-ZÉLANDE

Date of mailing (*day/month/year*)  
02 February 2006 (02.02.2006)

Applicant's or agent's file reference  
501792 TVG

**IMPORTANT NOTICE**

International application No.  
PCT/NZ2004/000153

International filing date (*day/month/year*)  
19 July 2004 (19.07.2004)

Priority date (*day/month/year*)  
18 July 2003 (18.07.2003)

Applicant

BLIS TECHNOLOGIES LIMITED et al

The International Bureau transmits herewith a copy of the international preliminary report on patentability (Chapter I of the Patent Cooperation Treaty)

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Authorized officer

Simin Baharlou

Facsimile No.+41 22 740 14 35

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# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference <b>501792 TVG</b>	<b>FOR FURTHER ACTION</b>	See item 4 below
International application No. <b>PCT/NZ2004/000153</b>	International filing date ( <i>day/month/year</i> ) <b>19 July 2004 (19.07.2004)</b>	Priority date ( <i>day/month/year</i> ) <b>18 July 2003 (18.07.2003)</b>
International Patent Classification (8th edition unless older edition indicated) <b>See relevant information in Form PCT/ISA/237</b>		
Applicant <b>BLIS TECHNOLOGIES LIMITED</b>		

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).																								
2.	This REPORT consists of a total of 5 sheets, including this cover sheet.																								
In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.																									
3.	<p>This report contains indications relating to the following items:</p> <table style="width: 100%;"> <tr> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 30%;">Box No. I</td> <td style="width: 60%;">Basis of the report</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input checked="" type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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<input type="checkbox"/>	Box No. VII	Certain defects in the international application																							
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application																							
4.	The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).																								

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Date of issuance of this report <b>23 January 2006 (23.01.2006)</b>
Facsimile No. +41 22 740 14 35	Authorized officer <div style="text-align: center; font-weight: bold; margin-top: 10px;">Simin Baharlou</div>
Telephone No. +41 22 338 71 30	

# PATENT COOPERATION TREATY

CORRECTED VERSION

REC'D 16 NOV 2004	
WIPO	PCT

Fr. the:  
INTERNATIONAL SEARCHING AUTHORITY

To:

A J Park & Son  
PO Box 949  
Wellington 6001  
NEW ZEALAND

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing (day/month/year) <b>12 OCT 2004</b>	
<b>FOR FURTHER ACTION</b> See paragraph 2 below	
Applicant's or agent's file reference <b>501792 TVG</b>	
International application No. <b>PCT/NZ2004/000153</b>	International filing date (day/month/year) <b>19 July 2004</b>
Priority date (day/month/year) <b>18 July 2003</b>	
International Patent Classification (IPC) or both national classification and IPC <b>Int. Cl. <sup>7</sup> A61K 35/74, A61P 31/04</b>	
Applicant <b>BLIS TECHNOLOGIES LIMITED et al</b>	

1. This opinion contains indications relating to the following items:

- |                                     |              |  |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the opinion   |
| <input type="checkbox"/>            | Box No. II   | Priority   |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability   |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention   |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input checked="" type="checkbox"/> | Box No. VI   | Certain documents cited  |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application   |
| <input type="checkbox"/>            | Box No. VIII | Certain observations on the international application  |

### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: <a href="mailto:pct@ipaaustralia.gov.au">pct@ipaaustralia.gov.au</a> Facsimile No.: (02) 6285 3929	Authorized Officer <b>M. ONG</b> Telephone No. (02) 6283 2491
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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/NZ2004/000153

**Box No. I      Basis of the opinion**

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

**PCT/NZ2004/000153**

**Box No. V** Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

**1. Statement**

Novelty (N)	Claims 1-70	YES
	Claims	NO
Inventive step (IS)	Claims 1-70	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-70	YES
	Claims	NO

**2. Citations and explanations:**

The following document identified in the International Search Report has been considered for the purposes of this report:

D1: WO 2003/0070919

Novelty (N): Claims 1-70

The invention is directed to the inhibition of halitosis causing anaerobic bacteria (eg. black pigmented *Prevotella*, *Eubacterium* and *Micromonas sp*) in the oral cavity by the introduction of a BLIS-producing *S. salivarius* or an extract thereof.

The document cited in the ISR were category A only. Therefore the subject matter of the present claims is not disclosed in any of the patent document cited. Hence the requirements of Article 33(2) PCT with regard to the requirement for novelty.

D1 was published after the priority date and will not be considered further. See however the indication in Box VI.

Inventive Step (IS): Claims 1-70

Claims 1-70 meet the criteria set out in PCT Article 33(3) with regard to the requirement of Inventive Step because the prior art does not obviously suggest to a person skilled in the art to use a BLIS-producing *S. salivarius* or an extract thereof to inhibit halitosis.

Industrial Applicability: Claims 1-70

Claims 1-70 have industrial applicability

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

**PCT/NZ2004/000153**

**Box No. VI      Certain documents cited**

**1. Certain published documents (Rules 43bis.1 and 70.10)**

<u>Application No. Patent No.</u>	<u>Publication date (day/month/year)</u>	<u>Filing date (day/month/year)</u>	<u>Priority date (valid claim) (day/month/year)</u>
WO 2003/070919	28/08/03	21/02/03	22/02/02

The document disclose the essential features of claims 1-70, in that the inhibition of halitosis is treated by the introduction of a BLIS-producing *S. salivarius* or an extract thereof in the oral cavity.

With regard to the document(s) listed in Box VI under "certain documents cited", these are documents published prior to the international filing date but later than the priority date claimed but which would otherwise be considered to be of particular relevance.

Under the PCT, novelty is considered only in respect of documents published before the priority date. The relevance of a document published after the priority date is dependent upon national law. Such documents are excluded from consideration in preliminary examination, under the PCT Guidelines but have been included here for information.

**2. Non-written disclosures (Rules 43bis.1 and 70.9)**

<u>Kind of non-written disclosure</u>	<u>Date of non-written disclosure (day/month/year)</u>	<u>Date of written disclosure referring to non-written disclosure (day/month/year)</u>
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